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SHAWN M. LATOURRETTE
Commissioner

VIA EMAIL ONLY

June 2, 2022

Sam Abdellatif
Land and Redevelopment Programs Branch
U.S. Environmental Protection Agency, Region 2
290 Broadway, 25th. Floor
New York, NY 10007-1866

RE: Amerada Hess Corp- Former Port Reading Refinery
EPA ID No. NJD045445483
750 Cliff Road
Woodbridge Township, Middlesex County
PI#: 006148

Comment Letter: Conceptual Site Model (CSM) Response to Comments

Dear Mr. Abdellatif:

The New Jersey Department of Environmental Protection (Department) has completed a review of the Conceptual Site Model (CSM) Response to Comments dated March 1, 2022. The document was submitted pursuant to the Site Remediation Reform Act (N.J.S.A. 58:10C-1 et seq.), the Administrative Requirements for the Remediation of Contaminated Sites (N.J.A.C. 7:26C), and the Technical Requirements for Site Remediation at N.J.A.C. 7:26E.

The Department has the following comments:

Comment 1: The response is acceptable. The historic fill evaluation will be completed with the remedial investigation. Based on NJGS mapping (last revision March 2018) historic fill is present at most of the site. The presence of historic fill does not preclude remediation of site impacts to soil, historic fill, and/or ground water due to refinery complex releases.

Comment 2: Free and residual NAPL impacts must comply with the Departments Technical Requirements for Site Remediation (N.J.A.C. 7:26E); Natural Source Zone Depletion (NSZD) of free and residual NAPL is not an approved final remedy for any NAPL areas pursuant to the Technical Requirements for Site Remediation at N.J.A.C. 7:26E-5.1(e), the Remediation Standards at N.J.A.C. 7:26D-2.2, and NJDEP Technical Guidance (Monitored Natural Attenuation and LNAPL IRM).

The responses states that, “Once delineation is complete, the remedial strategy for the Site may include a combination of source removal (hot spot excavations), in situ treatment, and the use of both institutional and engineering controls.”. Source remediation can be implemented concurrent with remaining dissolved plume delineation actions. Projected timelines for RIW completions are requested.

Comment 3: The response is acceptable. Offsite soil delineation will be completed by the conclusion of the RI.

Comment 4: The vapor intrusion investigations of 2020 and 2021 are identified and the response states a deliverable data package will be provided. This response is insufficient as full analytical deliverable packages are required for the purpose of QA/QC data validation. Hess must provide an explanation and justification for sample locations. Furthermore, Hess must address whether people are occupying the building and if so, where, and whether they collected samples from those areas. Hess should review the Vapor Intrusion Technical Guidance document at https://www.nj.gov/dep/srp/guidance/vaporintrusion/vit_main.pdf?version_5.

Comment 5: See above with Comment 2.

Comment 6: CSM conclusions based on limited COC detections were a concern to the Department based on the incomplete ecological evaluation, exclusion of soil boring and temporary well data, and incomplete investigations, including priority areas identified through the 2015 SIR review that included areas where LNAPL/elevated ground water COCs were identified.

The response highlighted “at risk” RI work underway at different AOC groups when the Department reviews exceeded a 90-day review period, and that data from completion of all RIs will be compiled and will include earlier soil boring and temporary well (TW) data.

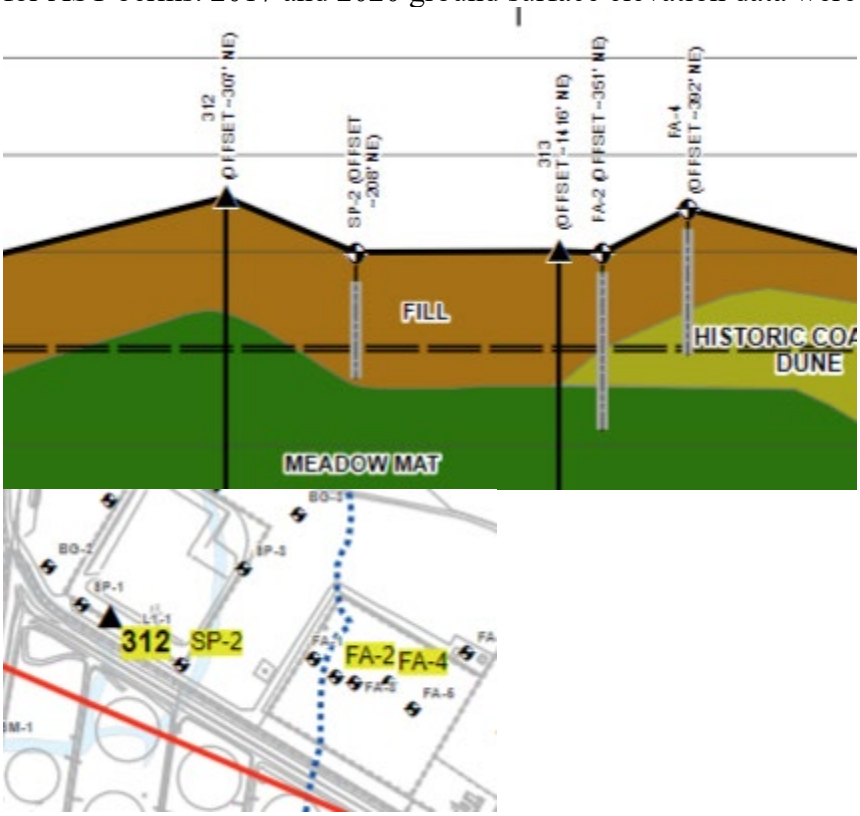
- It is not clear that LNAPL IRMs have been assessed and implemented at areas with LNAPL concerns identified in the SIR (e.g., AOC 56, AOC 46, AOC 57), or the progress of RIWs in those areas.
- Additional figures identifying the locations of LNAPL at soil borings and temporary wells (e.g., 2009-2015 and newer investigation locations) will be provided. In conjunction with monitor well data and flow conditions, this will assist in the evaluation of LNAPL and implementation of the source and plume investigations.
- Please note that soil samples were not always collected from elevated field screening intervals (e.g., PID). Evaluation of soil sample data with the soil boring logs is needed during the RI. Additional sampling may be needed to complete source evaluations.
- The Department is not bound to a 90-day review period for RI/RA documents but has agreed to communicate with Hess if the Department review time will exceed 90 days. USEPA has agreed that if the Departments review time exceeds this timeframe, that Hess is allowed to complete remedial investigation work “at risk”.

Comment 7: Hess identified retention of the option of reclassifying ground water at the site to a Class IIB aquifer through the rule making process. While Hess can retain this option, the CSM must evaluate site ground water impacts with respect to currently applicable Class IIA and/or Class IIIB ground water remediation standards (depending on chloride and TDS data). As previously stated, sources of impacts to ground water require remediation regardless of classification.

Receptor evaluations may result in additional source and/or plume mitigation/remediation requirements or MNA mechanisms may be shown to be protective of receptors.

Comment 8: The response is acceptable.

Comment 9: CSM figures - Portions of Figure 4-1 (below): This area appears to be level except for AST berms. 2017 and 2020 ground surface elevation data were provided for monitor wells.



- No ground surface survey data was provided for the other borings.
- Depending on the date of the non-well borings, survey reference points could be different, or there were ground surface modifications. The cross-sections are misleading.

Comment 10: The response is acceptable. Bulkhead construction and fill characteristics behind the bulkhead will be evaluated to assess ground water flow and contaminant migration conditions.

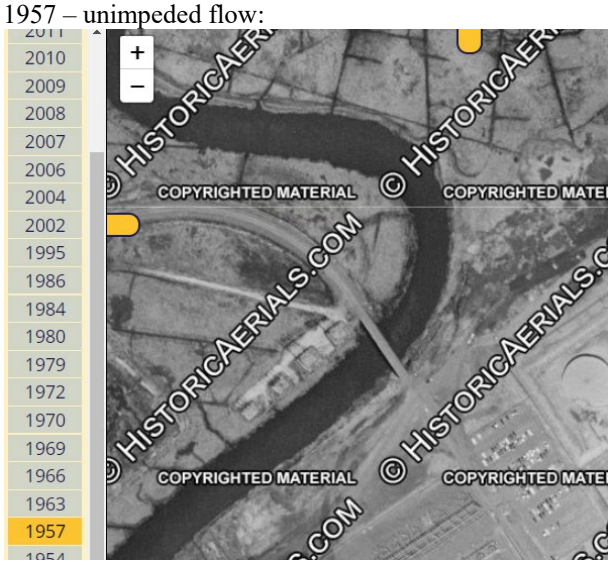
Comment 11: A conservative approach for ground water analytes was identified as TCL+ TICs/TAL metals, hexavalent chromium, EPH and pH analyses to cover all potential site COCs. TCL analyses are based on purge and trap analytical methods. All alcohols, oxygenates, and/or fuel additives, may not be quantified by typical purge and trap analytical methods. Additional analyses may be needed in portions of the former refinery that included storage, transfer, blending, etc. of these types of materials.

Comment 12: The response is acceptable. Migration to ground water remediation standards will be used in evaluation of RI data.

Comment 13: Creation of the Detention Pond area was stated to be between 1966 – 1970. It appears more accurate to state that on-site Smith Creek flow onto the site and at bridges was initially

modified between 1957-1963 and those conditions existed until after the 1969 AST failure. After the 1969 AST failure, and in conjunction with changes in process and storm water management and treatment at the site (as described in the 2015 Aeration Basin RAR), the property line dike constructed between 1970-1972 then contained the facility storm/process waters within the Detention Basin on the property.

1957 – unimpeded flow:



1963: change in flow at bridges and site:

1966: Similar to 1963

1969 after AST Failure:

1970: similar to 1966, some filling of basin occurred:

1972: Dike constructed along property line area: contained facility waters to the site:

Comment 14: The response is acceptable. Requested information (boring logs) will be provided in an appendix; text descriptions and figure differences will be reconciled.

Comment 15: The response is acceptable. Attachment A: AOC grouping figures will be the approved July 2021 figures. See comment 17, below, regarding Backwash Lagoon representation.

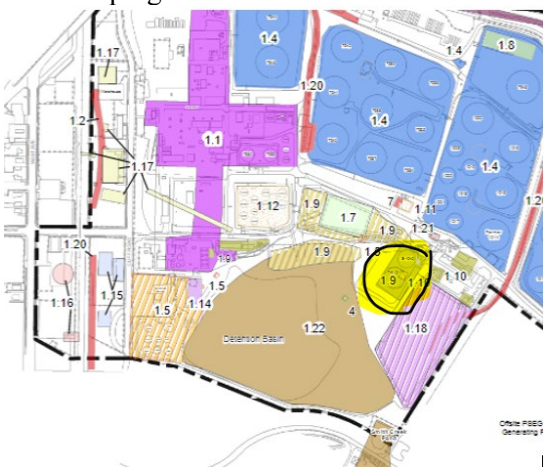
Comment 16: The response is acceptable. Releases between 2010 and sale of property will be compiled. HS-1 description provided in the AOC 12 RIW.

Comment 17:

- Historic Sample Location Summary Figure: The response is acceptable. A figure will be included in the CSM. Please ensure the locations of all SIR borings and temporary wells (and investigation locations since the 2015 SIR) are included. For example, only 9 of the 45 soil boring investigation locations in AOC 56 (2RTF Series folder) were included on Figure 44 AOC 56 Soil Analytical Results.

- Backwash lagoon: Correct the location of the backwash lagoon limits.

Portion of July 2021 Figure 1 Base Map – AOC Groupings:



Location of backwash lagoon with later ASTs and Aeration Basin limit:

- Stilling well, gauge at Smith Creek Basin: There is no stilling well (Arthur Kill), or staff gauge at Smith Creek Basin. Continued loss of reported staff gauges installed in Smith Creek Basin was discussed during April 27, 2022, site visit. No survey or gauging data has yet been provided at Smith Creek Basin to date. Gauging at Smith Creek Basin is needed.

- Port Reading Pipelines (through site, along Detention Basin dike): The Port Reading storm water line through the site must be included on figures. The upper portion of the concrete storm water line is visible at the surface of fill adjacent to the Detention Basin dike.

  The AOC 10 interceptor trench was mentioned by the Department because it is next to the pipeline, not because it was connected to the pipeline. The trench and sumps were installed in an LNAPL area at a pipeline break. The pipeline is a concern due to: LNAPL

entry into the pipeline and discharge to Smith Creek Basin prior to repair; the pipeline as a preferential pathway.

- Administration Building sumps – April 27, 2022 site visit discussion included drainage controls and clarification that there are no sump pumps or sump connections to the sewer. Sumps are pumped out if necessary.

- Soil borings with EPH, VOC, SVOC exceedances: The response is acceptable. Figures will be provided based on soil sample results. See Department Comment 6 (above) with respect to soil sample locations within borings.

- 1995 CMP Free phase LNAPL Areas: Areas of historic free phase LNAPL remain a concern with respect to residual LNAPL. The limits of both free and residual LNAPL areas remain relevant to the investigation.

- Isopleth figure ground water contours did not reflect 2019 contours: Clarification: COC isopleths that differ from ground water contours may indicate that site conditions are not fully understood.

Comment 18: The response is acceptable. Attachment E - Table E-1 will be revised to include well completion interval bgs, msl, and groundwater elevation columns.

Comment 19: The response is acceptable. Attachment F will include the site monitor well LNAPL gauging. Additional information from TW LNAPL observations will be provided. The Department again notes that the entire site data set remains informative to next steps.

Nothing in this correspondence affects Hess' potential liability and obligations to the State Trustee, the Department, or its Commissioner regarding natural resource injuries, restoration, or damages.

If you have any questions regarding this matter, contact Julia Galayda at Julia.Galayda@dep.nj.gov.

Sincerely,

Joseph Nowak

Joseph Nowak, Environmental Specialist 4
Bureau of Case Management

Cc: Julia Galayda, BCM
John Virgie, LSRP, Earth Systems
Ann Charles, BEERA
Jill Monroe, BGWPA